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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|-----------------------------|------------------|
| 10/766,384 | 01/28/2004 | Douglas C. Myers | 10541-1824 | 3353 |
| 29074 | 7590 | 10/18/2005 | EXAMINER JULES, FRANTZ F | |
| VISTEON C/O BRINKS HOFFER GILSON & LIONE PO BOX 10395 CHICAGO, IL 60610 | | | ART UNIT 3617 | PAPER NUMBER |

DATE MAILED: 10/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/766,384

Applicant(s)

MYERS ET AL.

Examiner

Frantz F. Jules

Art Unit

3617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-4, 9-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Kapaan et al (US 2004/0169415 A1).

Kapaan et al disclose a detachable shaft assembly of a vehicle wheel end having a shaft bell (1) and a disc rotor (31), the detachable half shaft (1) comprising a preloaded bearing assembly having an inner surface formed through inboard and outboard ends thereof, and detachable body (1) having an inboard interface at an inboard end and an outboard interface at an outboard end, the inboard interface being configured for connecting to the shaft bell and the outboard interface being configured for connecting to the disc rotor, the detachable body having a bearing receiving portion defined by a stepped boss (23) and a roll formed face, the bearing receiving portion radially receiving the inner surface of the preloaded bearing assembly, the stepped boss and the roll formed face engaging the bearing assembly at the inboard and outboard ends to maintain the preload thereon when the detachable half shaft assembly is detached from the shaft bell or the disc rotor.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5-6, 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kapaan et al in view of Wang et al (US 2005/0063628 A1).

Regarding using an interface which is a polygon or an 18-sided polygon surface as recited in claims 5-6, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Kapaan et al to include the use of an 18-sided polygon surface in his advantageous system, as shaft coupling is a common and everyday occurrence throughout the wheel end assembly design art as disclosed by Wang et al which disclose an inboard interface being a polygon assembly as shown in figs. 6-10 and the specific use of a polygon or an 18-sided polygon would have been an obvious matter of design preference depending upon such factors as the loading imposed on the axle, the yield strength of the shaft material and the shaft bell material; the ordinarily skilled artisan choosing the best stress profile corresponding to a particular loading imposed on the axle which would most optimize the cost and performance of the device for a particular application at hand, based upon the above noted common design criteria.

Response to Arguments

5. Applicant's arguments filed 08/31/2005 have been fully considered but they are moot in view of the new grounds of rejection.

The newly available prior art of Kapaan et al discloses a detachable shaft assembly which meet all the limitations of the of claims 1-4, 9-12 thereby give rise to his new ground of rejection

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frantz F. Jules whose telephone number is (703) 272-6681. The examiner can normally be reached on Monday-Thursday and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph S. Morano can be reached on (703) 272-6684. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Frantz F. Jules

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Primary Examiner

Art Unit 3617

FFJ

May 25, 2005

FRANTZ F. JULES
PRIMARY EXAMINER

A handwritten signature in black ink, appearing to read 'Frantz F. Jules', written over the printed name and title.